

Acknowledgements

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Specimens examined

MEXICO: Veracruz 5, Oaxaca 4, Chiapas 6, Campeche 3, Yucatán 2, Quintana Roo, 9. BELIZE: 10. HONDURAS: 6.
N.B. In a preliminary version of this study made in the early 1970's I came to the same conclusions about the validity of "*legtersi*"; specimens examined at that time included the CM and YPM skins listed above, plus 8 more from Campeche (University of Michigan 6, U.S. National Museum 2) and 1 from Tabasco (Louisiana State University).

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Rediscovery of the Cape Verde Cane Warbler *Acrocephalus brevipennis* on São Nicolau in February 1998

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The Cape Verde Cane Warbler *Acrocephalus brevipennis* is endemic to the Cape Verde Islands. It belongs to a clade of reed warblers distributed in the Afrotropics and on Atlantic and Indian Ocean islands

(cf. Leisler *et al.* 1997). Historically, it has been known to occur on three of the 10 islands in the Cape Verde archipelago, viz. Santiago, Brava, and São Nicolau, the last being the type locality (cf. Hazevoet 1993, Hazevoet & Fischer 1996). During 1988–1993, the population on Santiago was estimated at *c.* 500 pairs but surveys on Brava and São Nicolau did not locate any (Hazevoet 1993, 1995). The last reports from the latter two islands were from 1969 and 1924, respectively, and it was therefore presumed to be extinct there (Cramp 1992, Hazevoet 1993, 1995, Snow & Perrins 1998). Numbers on Santiago also appear to have declined drastically as it was reported to be common (and sometimes even 'abundant') by 19th century authors (Keulemans 1866, Dohrn 1871, Alexander 1898). Prolonged droughts and subsequent habitat deterioration are thought to be the cause of its decline on Santiago and presumed extinction on Brava and São Nicolau (Hazevoet 1995). Recently, a previously unreported specimen, collected on São Nicolau in October 1970, was discovered in the collection of the Centro de Zoologia, Lisbon, and this provided a new impetus for a thorough search on that island (Hazevoet 1999). From 1–20 February 1998, we searched all potential habitat on São Nicolau for the presence of the Cape Verde Cane Warbler. Grid references in the following are those found on the *Carta Militar de Portugal, Província de Cabo Verde* (sheet 19; survey of 1971, published 1975).

The first Cane Warbler on São Nicolau was located during the early morning of 4 February, when the species' characteristic harsh calls, as well as a short burst of song, were heard at Ribeira do Chafariz (altitude 700 m; Grid Ref. 817, 408), above Canto da Fajã, where it was observed again on 14 and 16 February. On 8 February, Ribeira da Queimada was surveyed, this being where the 1970 specimen had been collected, but no Cane Warblers were found here. However, on the same date, four territories, each with a calling and singing male, were found at Ribeira Tucudo (400–600 m), a tributary to Ribeira da Queimada. Three of the four territories at Ribeira Tucudo were concentrated at the uppermost 250 m of the valley bottom (Grid Ref. 851, 405), with the fourth situated *c.* 400 m 'downstream' (Grid Ref. 854, 407). Another three territories were found at Ribeira da Fragata between 14 and 19 February, with two at an altitude of 520 m (Grid Ref. 804, 413) and one at 125 m (Grid Ref. 809, 425). The straight-line distance between the sites at Ribeira Tucudo, Ribeira do Chafariz and Ribeira da Fragata (site 1 and 2) is *c.* 3.5, 1.5 and 1 km respectively, although there are high mountain ridges in between them.

The habitat of the Cape Verde Cane Warbler on São Nicolau generally comprised small but dense stands of cane *Arundo donax* along a dry riverbed, which were often also associated with shrubbery and fruit trees. At Ribeira do Chafariz, the birds occupied a small (*c.* 50 m²) patch of cane with only limited shrubbery. Habitat at Ribeira Tucudo also consisted of small but dense patches of cane but these were associated with extensive stands of mangos *Mangifera indica* and various other tree species, thus being quite similar to that of the Cane Warbler on Santiago (CJH pers. obs.). Similarly, Cane Warblers were

found in patches of *A. donax* associated with stands of trees (mainly orange trees *Citrus* sp. and mangos) at Ribeira da Fragata. Searches of large patches of cane that are common on the hillsides around Fajã valley failed to locate any Cane Warblers, perhaps because the cane was dry and less dense with no trees or shrubs associated with it. Equally, valleys with fruit trees but little cane, such as Ribeira Brava and Ribeira Quimada, did not have any Cane Warblers. The species has also been reported to use sugar-cane *Saccharum officinarum* (Keulemans 1866, Alexander 1898), but during this survey no birds were found in the small and sparse plantations on São Nicolau.

During our stay on São Nicolau, the large majority of the north-western part of the island, including most of the main ribeiras and their tributaries, was surveyed. The remaining southern and eastern parts of the island are extremely arid and no sustainable habitat for Cane Warblers is to be expected to exist there. While it is possible that there are a few more territories, we are convinced that we have located the majority of the Cane Warblers on the island. The population of the Cape Verde Cane Warbler on São Nicolau therefore totals approximately eight territories and so is to be considered critically endangered.

The Cape Verde Cane Warbler was reported to be 'not uncommon' on São Nicolau in 1865 (Keulemans 1866, Dohrn 1871) and 'fairly numerous' by Alexander (1898), who collected 13 specimens there at unspecified localities in 1897 (Hazevoet 1995). In 1924, three more specimens were collected at Ribeira Brava by the Blossom South Atlantic Expedition (Hazevoet 1995), but after that nothing was heard again of the species on São Nicolau until the discovery of the 1970 specimen in Lisbon and the eight territories documented here. The reason for this population decline is probably the loss of the Cane Warbler's habitat from most of the island as a consequence of desertification. Prolonged droughts have also caused successive crop failures in areas such as Ribeira Brava that were formerly renowned for their production of coffee and various tropical fruits, such that today only subsistence agricultural activities remain possible.

In view of the prevailing climatological conditions, prospects for the survival of a viable population on São Nicolau appear to be bleak, although the ribeiras of the north-western part of the island are clearly still suitable for the growth of both cane and fruit trees, the mixture of which appears to be the species' preferred habitat. If local farmers could be encouraged to plant and maintain stands of *A. donax* among the fruit trees, the area of habitat available to the Cane Warbler could be increased substantially. This, in turn, could lead to an increase of the Cane Warbler's population size on São Nicolau. However, such policy will be difficult to implement because *A. donax* is widely used as a cheap and easily exploited food supply for cattle and other domestic stock by the rural population. A thorough survey of the island of Brava may perhaps reveal that a few Cane Warblers still survive there as well but, at present, the species' last relative stronghold is on the island of Santiago.

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